

We claim:

1. A cannula for directing a liquid to or from a site during arthroscopic surgery, said cannula comprising:

a tube having a lumen extending therethrough;

5 a plurality of longitudinally staggered rows of slots disposed on the distal portion of the tube, wherein each row of slots comprises a plurality of slots disposed along a longitudinal line of the tube, and wherein each slot is in fluid communication with the lumen of the
10 tube;

said tube being increasingly flexible in the direction of the distal end of the tube.

2. The cannula of claim 1 further comprising a plurality of circumferential ridges, said ridges disposed on the proximal
15 portion of the tube.

3. The cannula of claim 1 wherein the slots are longitudinally oriented.

4. The cannula of claim 1 wherein the slots are circumferentially oriented.

20 5. The cannula of claim 1 further comprising a plurality of circumferential grooves disposed in the distal portion of the cannula, wherein at least one groove is disposed between two particular slots in a row of slots.

6. The cannula of claim 5 wherein the rows of slots are
25 longitudinally aligned with each other and wherein the at least

one groove is disposed around the entire circumference of the tube.

7. The cannula of claim 5 further comprising a plurality of circumferential ridges, said ridges disposed on the proximal
5 portion of the tube.

8. The cannula of claim 5 wherein the slots are longitudinally oriented.

9. The cannula of claim 5 wherein the slots are circumferentially oriented.

10 10. The cannula of claim 5 wherein the tube is characterized by a thickness, and wherein the thickness of the tube progressively tapers along the direction of the distal end of the tube.

11. A surgical instrument port operable to allow the passage of surgical instruments into and out of a surgical space while
15 restricting the flow of fluid to and from the surgical space, said surgical instrument port comprising:

a rigid tube, said rigid tube having a proximal end and a distal end, said rigid tube having a lumen passing through the rigid tube, said lumen sized and dimensioned
20 to accommodate a surgical instrument;

a valve operably connected to the rigid tube, said valve operable to allow the insertion and removal of the surgical instrument into the lumen and through the valve without allowing a substantial flow of fluid proximally
25 through the valve;

a cannula attached to the distal portion of the rigid tube, said cannula comprising:

a flexible tube, said tube having a lumen extending therethrough, said lumen in fluid communication with the lumen of the rigid tube, wherein the diameter of the lumen is sized and dimensioned to receive a surgical instrument;

a plurality of longitudinally staggered rows of slots disposed on the distal portion of the tube, wherein each row of slots comprises a plurality of slots disposed along a longitudinal line of the tube, and wherein each slot is in fluid communication with the lumen of the tube;

said tube being increasingly flexible in the direction of the distal end of the tube.

12. The instrument port of claim 11 further comprising a plurality of circumferential ridges, said ridges disposed on the proximal portion of the tube.

13. The instrument port of claim 11 wherein the tube of the cannula is characterized by a thickness, and wherein the thickness of the tube progressively tapers along the direction of the distal end of the tube.

14. The instrument port of claim 11 wherein the valve is a duckbill valve.

15. The instrument port of claim 11 wherein the cannula is removably attached to the rigid tube.

16. The instrument port of claim 11 further comprising a fluid port operably attached to the rigid tube and in fluid communication with the lumen of the rigid tube.

17. The instrument port of claim 11 further comprising a clamp operably connected to the rigid tube, said clamp operable to restrict the flow of fluid of a second tube in fluid communication with the instrument port.

5 18. The instrument port of claim 11 wherein the slots are longitudinally oriented.

19. The instrument port of claim 11 wherein the slots are circumferentially oriented.

10 20. A system for performing arthroscopic surgery, said system comprising:

a surgical instrument port operable to allow the passage of surgical instruments into and out of a surgical space while preventing the backflow of fluid from the surgical space, said surgical instrument port comprising:

15 a rigid tube, said rigid tube having a proximal end and a distal end, said rigid tube having a lumen passing through the rigid tube, said rigid tube sized and dimensioned to accommodate a surgical instrument;

20 a valve operably connected to the rigid tube, said valve operable to allow the insertion and removal of the surgical instrument through the valve without allowing a substantial flow of fluid proximally through the valve;

25 a cannula attached to the distal portion of the rigid tube, said cannula further comprising:

a flexible tube, said tube having a lumen extending therethrough, said lumen in fluid

communication with the lumen of the rigid tube
and said tube sized and dimensioned to receive
a surgical instrument;

5 a plurality of longitudinally staggered rows of
slots disposed on the distal portion of the
tube, wherein each row of slots comprises a
plurality of slots disposed along a
longitudinal line of the tube, and wherein each
slot is in fluid communication with the lumen
10 of the tube;

said tube being increasingly flexible along the
direction of the distal end of the tube; and

a surgical instrument extending through the lumen of the
rigid tube and through the lumen of the cannula, said
15 surgical instrument operable to perform a surgical
procedure.

21. The system of claim 20 wherein the surgical instrument is
curved.

22. A method of performing arthroscopic surgery, said method
20 comprising the steps of:

providing a surgical instrument port operable to allow the
passage of surgical instruments into and out of a
surgical space while preventing the backflow of fluid
from the surgical space, said surgical instrument port
25 comprising:

a rigid tube, said rigid tube having a proximal end
and a distal end, said rigid tube having a lumen

passing through the rigid tube, said lumen sized and dimensioned to accommodate a surgical instrument;

5 a valve operably connected to the rigid tube, said valve operable to allow the insertion and removal of the surgical instrument through the valve without allowing a substantial of fluid proximally through the valve;

a cannula attached to the distal portion of the rigid tube, said cannula further comprising:

10 a flexible tube, said tube having a lumen extending therethrough, said lumen in fluid communication with the lumen of the rigid tube, wherein the diameter of the lumen is sized and dimensioned to receive a surgical instrument;

15 a plurality of longitudinally staggered rows of slots disposed on the distal portion of the tube, wherein each row of slots comprises a plurality of slots disposed along a longitudinal line of the tube, and wherein each slot is in fluid communication with the
20 lumen of the tube;

said tube being increasingly flexible in the direction of the distal end of the tube; and

providing a surgical instrument suitable for performing an arthroscopic surgery procedure;

25 inserting the surgical instrument through the lumen in the port, through the valve and through the cannula;

inserting the surgical instrument and cannula into an operating space; and

performing the arthroscopic surgery procedure.